Goal 5:

Compliance and Environmental Stewardship

Improve environmental performance through compliance with environmental requirements, preventing pollution, and promoting environmental stewardship. Protect human health and the environment by encouraging innovation and providing incentives for governments, businesses, and the public that promote environmental stewardship.

Progress Toward the Strategic Goal and Objectives

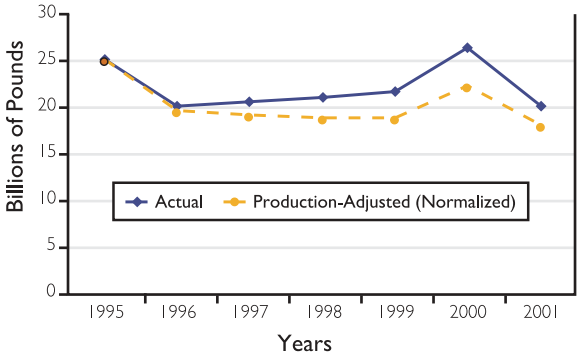
A vital part of EPA's mission is to improve the environment and protect human health by ensuring compliance with our nation's environmental laws, preventing pollution at its source, fostering innovative solutions to environmental problems, and advancing an ethic of environmental stewardship among businesses, governments, and the public. EPA is making substantial progress toward attaining its environmental objectives under this goal for FY 2008 through the use of integrated strategies of compliance assistance and incentives, monitoring and data analysis, innovative approaches, and civil and criminal enforcement.

EPA employs "a smart enforcement" framework to achieve the best possible environmental results. Smart enforcement is the use of the most appropriate enforcement or compliance tools to address the most significant problems to achieve the greatest impact for environmental protection.[1] Working in partnership with state and tribal governments, local communities, and other federal agencies, EPA identifies and addresses the most significant environmental and public health problems and strategically targets its resources to achieve the highest possible levels of performance in its pollutant reductions. Through enforcement settlements, the Agency cumulatively reduced nearly 1.6 billion pounds of pollutants in FY 2001-2003.[2]

Integrating Compliance and Stewardship for Improved Results

- Nearly 1.6 billion pounds of pollutants reduced since 2001.
- 6,269 facilities voluntarily self-disclosed and corrected violations through audits since 2000.
- 6.9 billion pounds of TRI wastes prevented since 1995.
- 1.1 mmBTU of energy conserved, 908 tons of hazardous materials reduced, and 10,823 tons materials recycled, and reused by Performance Track members collectively since 2000.

Figure 5-1. TRI Total Waste Trend, FY 1995-2001: 1995 Core Chemicals, Original Industries



Source: Toxics Release Inventory (TRI) Explorer maintained by the U.S. EPA Office of Environmental Information. Data accessed at http://www.epa.gov/triexplorer on August 14, 2003.

Substantial progress has also been made toward this goal's objective to improve environmental protection and enhance natural resource conservation by reducing pollution at the source. Since 1995, wastes reported by manufacturers to EPA's Toxic Release Inventory (TRI) have declined by 27.3 percent.[3] (See Figure 5-1.)

In FY 2003, the National Pollution Prevention Roundtable released a report that showed that states operating under EPA pollution prevention grants have prevented more than 167 billion pounds of pollution, conserved more than 215 million kilowatt hours (kWh) of energy and 4.1 billion gallons of water, and saved industry more than $666 million for the period from 1990 to 2000.[4] (See Figure 5-2.)

The Resource Conservation Challenge (RCC) is a national program designed to find a flexible, yet more protective way to conserve valuable natural resources through pollution prevention, waste reduction, and energy recovery. EPA is working with business and industry groups, governments at all levels, tribes, and non-governmental organizations to reduce waste generation, increase recycling, and recover energy through voluntary partnerships, outreach, and demonstrations. During 2003, RCC Program efforts began to focus on targeted waste commodities such as priority chemicals; paper; electronics; debris from the construction and demolition sector; and products used and waste produced by hospitals, schools, and industrial waste generators.

EPA has also significantly reduced priority chemicals in hazardous wastes by approximately 42 percent compared to 1991 releases.[5] Through EPA's Waste Minimization Partnership Program, voluntary partners have pledged to eliminate an additional 70,000

Figure 5-2. An Ounce of Pollution Prevention is Worth Over 167 Billion Pounds of Cure: A Decade of Pollution Prevention Results, 1990-2000

Resources Conserved:

- 215 million kWh of energy
- 4.1 billion gallons of water
- $666 million in cost savings

Source: National Pollution Prevention Roundtable. *An Ounce of Pollution Prevention Is Worth Over 167 Billion Pounds of Cure: A Decade of Pollution Prevention Results 1990-2000*. National Pollution Prevention Roundtable: Washington, DC, 2003. Information available at http://www.p2.org/p2results/PressRelease.cfm.

pounds of priority chemicals during FY 2003, and an average of approximately 40,000 pounds of waste minimization priority chemicals in wastes annually through FY 2005.[6]

Working under the leadership of a newly created National Center for Environmental Innovation and benefitting from a cross-Agency innovation strategy, EPA continued to invest in innovative approaches to achieve better environmental results. In FY 2003, EPA's most comprehensive program for rewarding and recognizing environmental leadership—the National Environmental Performance Track Program—added 62 new members, bringing the total membership to 309 facilities. The latest program results showed that members collectively conserved 1.1 megamillion British Thermal Units (mmBTU) of energy, reduced use of hazardous materials by 908 tons, and increased use of recycled and reused materials by 10,823 tons during calendar year 2001.[7]

EPA also partnered with 10 states to develop new approaches and promote adoption of those approaches that have proven successful. For example, EPA continued working with Massachusetts to promote its highly successful Environmental Results Program (ERP) for improving environmental performance in small business sectors. ERP uses self-certification procedures, compliance assistance, and performance measures to improve accountability and track results. Massachusetts estimates that its work with dry cleaners resulted in reduced emissions of perchloroethylene by more than 22 tons between 1997 and 1999, an amount that would equal the emissions from about 60 major hazardous air pollution sources.[8] Similarly, printers in Massachusetts reduced emissions of volatile organic compounds by 4 tons between 1998 and 2000.[9] Based on ERP's success, other states are now moving to create similar programs.

EPA is also making progress toward its objective to protect human health and the environment in Indian Country by exploring additional ways to build tribal capacity in environmental management. As part of that effort, EPA received authorization for 1 year to enter into cooperative agreements with tribes to help build tribal capacity in implementing environmental programs while also assisting EPA staff with environmental inspections, ordinances, and monitoring. In FY 2003, EPA staff worked with the tribes through tribal cooperative agreements to conduct joint inspections, develop and implement smoke ordinances to protect local air quality, and address pollution from underground storage tanks.

FY 2003 Performance

Maximizing Results Through Smart Enforcement

EPA's enforcement and compliance assurance program focuses on reducing pollution and achieving other results that protect human health and the environment. In addition to the prevention or reduction of emissions or discharges by an estimated 600 million pounds of pollutants to be reduced, 63 percent of concluded enforcement settlements required an action that resulted in pollutant reductions and/or changes in facility management or information practices.[10]

In addition to pollutant reductions, the Agency exceeded its FY 2003 performance targets in conducting 18,880 inspections, and 344 civil and 471 criminal investigations.[11] EPA and 14 states concluded a major Clean Air Act settlement with grain industry giant Archer, Daniels, Midland (ADM), covering 52 of its plants in 16 states. This joint federal and state enforcement action requires ADM to implement, over 10 years, sweeping environmental improvements at its plants nation-wide and is anticipated to result in an estimated annual reduction of 63,000 tons of

air pollution. These air pollution reductions include a decrease in nitrogen oxides, carbon monoxide, particulate matter, sulfur dioxide, volatile organic compounds (VOCs), and hazardous air pollutants (HAPs).[12]

Compliance assistance provided through EPA's Compliance Assistance Centers and Compliance Assistance Clearinghouse is an integral part of smart enforcement strategies. In FY 2003, EPA provided a wide range of new compliance assistance information tools and services for regulated facilities, industry sectors, trade associations, environmental assistance providers, and the public to help increase understanding of environmental requirements, improve facility practices, and reduce facility emissions. The Clearinghouse launched Centers for three new sectors —the construction and auto salvage industries and U.S.-Mexico Border compliance. In FY 2003, survey respondents who use the Centers stated that 87 percent had improved their understanding of environmental requirements, 75 percent reported that they had taken an action as a result of the Centers; and 81 percent of those respondents indicated that they had realized an environmental benefit as a result of the actions taken. In addition, EPA-supported Compliance Assistance Centers reached more than 869,000 entities.[13]

The Agency promotes facility self-policing and improvement through incentives, such as EPA's Audit Policy, by encouraging identification and correction of violations, and by requiring facilities to implement environmental management systems as part of enforcement settlements. In FY 2003, more than 509 companies used the EPA Audit Policy to report and resolve violations at 848 facilities. For example, more than 350 facilities in 250 municipalities across New England are participating in the Department of Public Works (DPW) Audit Initiative to improve their environmental performance. Facilities are reporting and correcting violations involving improper handling, disposal, and storage of hazardous waste and petroleum products; inadequate emergency procedures; unpermitted discharge of wastewater to ponds, streams, and wetlands; and improper use of floor drains to contain wastes. Because these violations are corrected sooner than they otherwise would be, a significant environmental benefit is achieved. This voluntary program was developed in partnership with the New England Chapter of the American Public Works Association and was offered to DPWs in New England following a number of significant enforcement actions against municipal highway garages.[14]

Preventing Pollution and Conserving Resources

EPA uses the Toxic Release Inventory (TRI) as one method to measure national progress in preventing pollution. The TRI tracks toxic chemical releases and the generation of hazardous wastes by major industrial facilities. The 2001 TRI data report released in 2003 shows large reductions in both wastes generated and releases to the environment. For example, in 2001, U.S. manufacturers reduced total waste reported to TRI by 18.5 percent, or 4.2 billion pounds (compared to 2000 levels), when normalized to account for changes in production. Additionally, manufacturers reduced their actual environmental releases of toxic chemicals by 14.4 percent, or 600 million pounds, from 2000 levels. This represents the largest aggregate annual reduction since the number of chemicals required to be reported to TRI was doubled in 1995,

and significant progress in the collaborative effort of industry and EPA.[15] More information on TRI can be found in Goal 4.

EPA's Design for the Environment (DfE), Hospitals for a Healthy Environment (H2E), and Green Chemistry Challenge Award programs promote the adoption of less polluting practices through pollution prevention outreach. DfE's Formulator Initiative partners with manufacturers of industrial and institutional detergents, cleaners, and other products. As a result of DfE partnership with 6 product manufacturers, more than 15 new eco-friendly formulations entered the marketplace in FY 2003. Since 1997, the Formulator Initiative has involved partnerships with 19 companies and has recognized more than 30 eco-friendly products.[16] Annual benefits (assuming 2.6 million loads using 2-ounce detergent doses for a 50-pound institutional washer) from the use of just 1 DfE-recognized laundry detergent include eliminating more than 300,000 pounds of toxic chemicals and conserving more than 100 million gallons of laundry water and the energy that would have been needed to heat the water.[17]

Nearly 1,900 hospitals and healthcare facilities across the country are participating in EPA's H2E, an innovative program designed to voluntarily eliminate mercury use and reduce hospital waste by 50 percent.[18] In 2003, several major healthcare networks joined the ranks of H2E, including the Veterans Health Administration with 162 healthcare facilities; the Catholic Healthcare Association, with a membership of more than 700 facilities; and Columbia/HCA, with more than 200 facilities.[19] H2E does not compromise necessary medical uses of mercury.

The Green Chemistry Challenge Award Program uses Presidential recognition as an incentive for chemical designers to prevent pollution and conserve water and energy use.[20] During FY 2003, Green Chemistry Challenge Award-winning technologies prevented more than 126 million pounds of hazardous chemicals and solvents from being used or released and saved 55 million gallons of water. Since its inception (FY 1996) through FY 2003, the program has cumulatively eliminated more than 326 million pounds of hazardous chemicals and solvents.[21]

EPA promotes the adoption of effective technologies that protect the public and the environment from high-risk pollutants. In FY 2003, EPA verified the performance of environmental technologies to help industry, states, and consumers choose more effective technologies. Through the Environmental

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Technology Verification (ETV) Program, in FY 2003 EPA tested the performance characteristics of 40 environmental technologies to provide credible information to technology purchasers, permitters, vendors, and developers, with an intent to speed the implementation and adoption of innovative technologies that will prevent or reduce pollution. Vendors can use the peer-reviewed data on technology performance to sell their products, while purchasers and permitters can use this information to guide their purchasing decisions. In addition, the program verified three diesel retrofit technologies for consideration as pollution control technologies in EPA's voluntary diesel retrofit program, which encourages owners to install pollution-reducing devices on their vehicles and use cleaner-burning diesel fuel to reduce the release of harmful emissions.[22]

Innovative Approaches

In FY 2003, EPA invested in innovative approaches aimed at improving the efficiency and effectiveness of environmental programs and enhancing environmental performance among businesses, communities, and other organizations that manage environmental responsibilities. EPA focused much of its attention on supporting innovation in individual states. Under the Joint Agreement on Regulatory Innovation, EPA worked with states on a number of innovative projects that address state environmental priorities. For example, EPA and Michigan collaborated on a novel approach for reducing storm water contamination to local water bodies. As a result, 48 Michigan municipalities began managing municipal storm water several years before Agency regulations would have applied. The innovative watershed permitting approach allowed for targeting storm water management practices among municipalities, within watersheds, to achieve the greatest impacts on water quality. The early and coordinated implementation of the storm water management practices are expected to have substantially reduced nutrient and sediment pollution, and also to have alleviated problems caused by the increased volume and velocity of flow associated with wet weather.[23] In the Rouge River watershed alone, where 25 municipalities are participating in the pilot program, dissolved oxygen readings indicate non-attainment has dropped from 61 percent to 4 percent, and frog and toad survey results have demonstrated ecological improvements.[24]

Some projects have been pursued because of their potential for revealing ways to improve environmental protection on a national scale. EPA and Arizona have worked with Intel Corporation in Arizona on an innovative air permit that caps overall emissions and eliminates the need for multiple air permits. As part of the agreement, Intel committed to make specific environmental improvements. FY 2003 results show a 981 ton reduction in solid waste, and 375 ton and 911 ton increases in the amounts of nonhazardous and hazardous wastes recycled, respectively. Likewise, a project with Crompton Corporation in West Virginia that is testing a more cost-effective approach for controlling hazardous air pollutants continued to rack up environmental benefits in FY 2003. Air emissions and wastewater sludge were reduced by 211,000 pounds and 680,000 pounds, respectively, while 430,000 pounds of methanol were reused.[25]

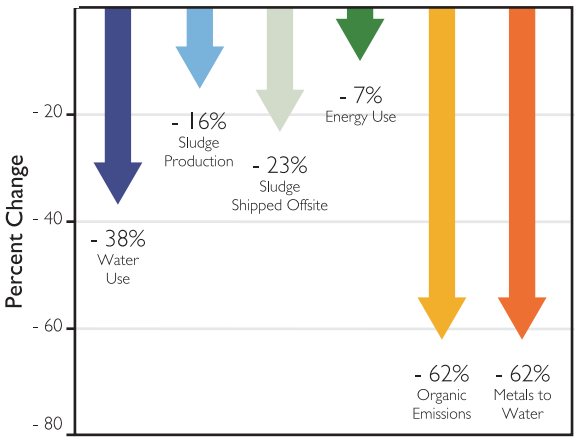
EPA also fostered environmental stewardship through innovative programs with business and industry. Performance Track[26] recognizes and rewards facilities that demonstrate strong environmental performance. Sixty-two new members joined the program in FY 2003, and achievements of all 309 participating facilities are noted at the beginning of this chapter. As membership has grown, EPA has continued developing additional incentives that will encourage more facilities to seek membership by demonstrating strong environmental performance.

EPA works with a variety of organizations to improve the environmental performance of small businesses. In FY 2003, EPA worked with Maine, Rhode Island, Delaware, Maryland, Tennessee, New Jersey, Florida, and the District of Columbia to set up ERP programs for priority small business sectors, and with Vermont, New Hampshire, Michigan, and New Jersey to initiate planning. EPA supported organizations that provide environmental assistance to more than 1 million small businesses a year, and maintained its toll-free hotline to provide small businesses, trade associations, and others convenient, confidential assistance.[27]

In FY 2003, EPA also expanded its Sector Strategies Program,[28] establishing sector points-of-contact to address performance improvement barriers and stewardship opportunities. The 12 sectors in the program represent approximately 22 percent of the U.S. manufacturing gross domestic product, 700,000 facilities, and more than $8.55 billion spent annually on pollution control.[29] Figure 5-3 shows energy and water conservation, and reductions in waste generation, water effluent, and air emissions achieved by the metal finishing sector through this partnership approach.[30]

In FY 2003, EPA continued its support of improved compliance and stewardship by fostering consideration of alternative approaches, such as voluntary programs, innovative compliance tools, and flexible, market-based solutions. EPA also made progress toward creating an Ecological Benefits Strategic Plan that will provide a unified framework to better apply existing ecological and economic methods and data to valuing the ecological impacts of policies and regulations, and will establish a research agenda to fully account for ecological goods and services in economic analysis. The information from these efforts will help decision makers identify priorities and efficiently use the scarce societal resources available to achieve desired environmental goals and objectives.

Figure 5-3. Metal Finishing Strategic Goals Program Progress 2003



Percentage reductions by participating SGP facilities from 1992 baseline; reductions normalized by $ of sales using most current available data.

The Agency also continued research in FY 2003 on environmental health issues in an effort to improve risk assessment data used in economic analyses and aid in the evaluation and design of environmental programs. EPA released its report on indicators of children's environmental health, which documents national measures of contaminants, body burdens, and illnesses to children. This report serves as an important benchmark that EPA will use to guide its future actions and measure progress.[31]

In FY 2003, under the Indian General Assistance Program, EPA provided $57.1 million in grants to tribal governments and intertribal consortia for developing the capacity to administer environmental protection programs and conduct assessments of the conditions of their lands.

Assessment of Impacts of FY 2003 Performance on FY 2004 Annual Plan

There are no changes to FY 2004 APGs based on results of FY 2003 performance.

Summary of Results—Goal 5

Number of Goals Met:	7
Number of Goals Not Met:	1
Number with Data Lag:	2

Annual Performance Goals (APG) and Measures

Goal 5: Compliance And Environmental Stewardship

APG 50	Regulated Communities	Planned	Actual
FY 2003	Increase the regulated community's compliance with environmental requirements through their expanded use of compliance assistance. The Agency will continue to support small business compliance assistance centers and develop compliance assistance tools such as sector notebooks and compliance guides. Goal Met.		
	Performance Measures		
	—Facilities, states, technical assistance providers or other entities reached through targeted compliance assistance.	475,000	721,000

FY 2003 Result: EPA's targeted compliance assistance program continues to increase the regulated community's understanding of compliance with environmental requirements and improve facility environmental management practices by providing web-based compliance assistance. The increase in results reflects the EPA's regional offices use of a more integrated, strategic, and performance based approach to incorporating compliance assistance into their strategies for addressing environmental problems. EPA has also provided compliance assistance measurement training to emphasize the measurement of activities and outcomes.

APG 51	Compliance Incentives	Planned	Actual
FY 2003	Increase opportunities through new targeted sector initiatives for industries to voluntarily self-disclose and correct violations on a corporate-wide basis. Goal Met.		
	Performance Measures		
	—Facilities voluntarily self-disclose and correct violations with reduced or no penalty as a result of EPA self-disclosure policies.	500	848
FY 2002	Same Goal. Goal Met.		
	Performance Measures		
	—Facilities voluntarily self-disclose and correct violations with reduced or no penalty as a result of EPA self-disclosure policies.	500	1,467
FY 2001	Same Goal. Goal Met.	500	1,754
FY 2000	Increase entities self-policing and self-correction of environmental problems through use of EPA incentive policies: small business, small community and audit policies over FY 1997 levels. Goal Met.		
	Performance Measures		
	—Number of facilities that self-disclose potential violations.	346	2,200

APG 51 Compliance Incentives *(continued)*

FY 2003 Result: EPA's incentive programs continue to encourage regulated entities to review their operations, and disclose and correct violations of environmental requirements with reduced or waived penalties. On-going tailored compliance incentive programs include the following sectors: Bakers, Colleges and Universities, Wood Treaters, Grain Processing, Prisons, and Stormwater/Commercial Development. This approach has worked very well, in FY 2003, 848 facilities self-disclosed and corrected violations, exceeding the target of 500 self audits.

APG 52 Inspections/Investigations		Planned	Actual
FY 2003	**EPA will conduct inspections, criminal investigations, and civil investigations targeted to areas that pose risks to human health or the environment, display patterns of non-compliance, or include disproportionately exposed populations.** Goal Met.		
	Performance Measures		
	—Number of EPA inspections conducted.	**14,000**	**18,880**
	—Number of criminal investigations.	**400**	**471**
	—Number of civil investigations.	**180**	**344**
FY 2002	Same goal, different targets. Goal Met.		
	Performance Measures		
	—Number of EPA inspections conducted.	15,500	17,668
	—Number of criminal investigations.	400	484*
	—Number of civil investigations.	200	541
FY 2001	Same goal, different targets. Goal Met.		
	Performance Measures		
	—Number of Inspections.	17,000	17,812
	—Number of criminal investigations.	450	482
	—Number of civil investigations.	250	368
FY 2000	Same goal, different targets. Goal Not Met.		
	Performance Measures		
	—Number of EPA inspections.	13,500	20,123
	—Number of civil investigations.	150	660
	—Number of criminal investigations.	500	477
	—Percent of inspections and investigations (civil and criminal) conducted at priority areas.	50%	15%

FY 2003 Result: The Agency significantly exceeded FY 2003 performance targets for environmental compliance inspections, criminal investigations, and civil investigations. This is due, in part, to improved analysis of environmental data, providing better targeting information for inspections and investigations. This increase also reflects work done to address unique regional priorities such as local watershed issues. EPA achieved its target of 180 civil investigations, performing 344 investigations. The number of investigations conducted in a given year depends on a wide variety of factors that are difficult to predict, including facility compliance with applicable environmental regulations, identification of a specific environmental problem, observed environmental problems, or repeated complaints regarding a specific facility or facilities. It represents a rough prediction based upon past experience in reporting and conducting investigations. As a result of increasing EPA compliance inspections and investigations, the Agency provides an effective deterrent against violations of environmental laws.

* **NOTE:** Historically, the target for criminal investigations has applied only to investigations of environmental crimes. In FY 2002, the Agency incorrectly added 190 homeland security investigations to the number of environmental crimes investigations for a total of 674 criminal investigations. The total number of criminal investigations for FY 2002 should have been only 484, which represents the number of environmental crimes investigations initiated.

APG 53	Non-Compliance Reduction	Planned	Actual
FY 2003	**EPA will direct enforcement actions to maximize compliance and address environmental and human health problems. Goal Not Met.**		
	Performance Measures		
	—75% of concluded enforcement actions require physical action that result in pollutant reductions and/or changes in facility management or information practices.	**75%**	**63%**
	—Millions of pounds of pollutants required to be reduced through enforcement actions settled this fiscal year.	**300 M**	**600 M**
	—Develop and use valid compliance rates or other indicators of compliance for selected populations.	**5 populations**	**5 populations**
FY 2002	EPA will direct enforcement actions to maximize compliance and address environmental and human health problems; 75% of concluded enforcement actions will require environmental or human health improvements such as pollutant reductions and/or changes in practices at facilities. Goal Not Met.		
	Performance Measures		
	—75% of concluded enforcement actions require physical action that result in pollutant reductions and/or changes in facility management or information practices.	75%	77%
	—Millions of pounds of pollutants required to be reduced through enforcement actions settled this fiscal year.	300 M	261 M
	—Develop and use valid compliance rates or other indicators of compliance for selected populations.	5 populations	5 populations
	—Reduce by 2 percentage points overall the level of significant noncompliance Recidivism among CAA, CWA, and RCRA programs from FY 2001 levels.	2%	1.6%
	—Increase by 2% over FY 2001 levels the proportion of significant noncomplier facilities under CAA, CWA, and RCRA which returned to compliance in less than 2 years.	2%	-3.8%
	—Produce report on the number of civil and criminal enforcement actions initiated and concluded.	1	1
FY 2001	Same goal, different targets. Goal Met.		
	Performance Measures		
	—75% of concluded enforcement actions require pollutant reductions and/or changes in facility management or information practices.	75%	79%*
	—Estimated pounds of pollutants reduced.	350 M	660 M
	—Increase or maintain existing compliance rates or other indicators of compliance for populations with established baselines, or develop additional rates for newly selected populations.	5 populations	6 populations
	—Reduce by 2 percentage points overall the level of significant non-compliance recidivism among the CAA, CWA, and RCRA programs from FY 2000 levels.	2%	2.4%

APG 53	Non-Compliance Reduction *(continued)*	Planned	Actual
FY 2001 *(continued)*	—Increase by 2% over FY 2000 levels the proportion of significant non-complier facilities under CAA, CWA, and RCRA which returned to compliance in less than 2 years.	2%	1.33%
	—Produce a report on the number of civil and criminal enforcement actions initiated and concluded.	1	1
FY 2000	Same goal, different targets. **Goal Met.**		
	Performance Measures		
	—Percent of actions which require pollutant reductions.	35%	13.6
	—Estimated pounds of pollutants reduced (aggregate).	300 M	714 M
	—Establish statistically valid noncompliance rates or other indicators for selected environmental problems.	5	5
	—Establish a baseline to measure percentage of significant violators with reoccurring significant violations within 2 years of returning to compliance.	1	1
	—Establish a baseline to measure average length of time for significant violators to return to compliance or enter enforceable plans/agreements.	1	1
	—Produce report on the number of civil and criminal enforcement actions initiated and concluded.	1	1

FY 2003 Result: EPA went well beyond the FY 2003 target of 300 million pounds of pollutants reduced. This occasionally happens because it is impossible to exactly predict the numbers of enforcement cases which will be filed or the numbers of cases which will settle in a year. EPA establishes its annual targets by studying previous performance. In FY 2003, several cases with enormous anticipated pollutant reductions were settled: the Joe Ivie hog farm case is estimated to prevent 98 million pounds of oil and grease from being released into the water; the Archer Daniels Midland case will reduce an estimated 126 million pounds of air pollutants a year; and a settlement with ALCOA is anticipated to reduce the company's emissions of sulfur dioxide and nitrogen oxides to the air by more than 136 million pounds per year. The percentage of concluded enforcement actions requiring a pollutant reduction and/or change in facility management practices was lower than the target of 75%. This missed target occurred due to a reporting problem. While there was an increase in the percentage of concluded enforcement actions that were able to quantify pounds of pollutants reduced, there was also a reduction in the reporting of non-physical complying actions (non-physical actions include items such as record keeping, reporting, and auditing). Because of this reduction in reporting certain types of actions, the overall percentage went down. EPA plans to address this problem by ensuring more accurate reporting in FY 2004. However, the overall level of pounds of pollutants reduced was more than double the pounds of pollutants target, which indicates that the overall environmental benefit was achieved despite falling short of the target for enforcement actions requiring pollutant reductions or change in facility management practices. In FY 2003, EPA calculated statistically valid compliance rates for self-reported Clean Water Act data for five populations: (1) Biological Oxygen Demand (BOD), (2) Total Suspended Solids (TSS) for municipal wastewater treatment facilities, (3) zinc (4) lead for iron and steel facilities, and (5) ammonia-N for petroleum refineries.

FY 2002 Performance Measure Result Available in FY 2003: Recidivism rates measure the number of facilities that return to significant non-compliance with Clean Water, Clean Air, and Resource Conservation and Recovery Acts, with 2 years of having corrected their previous compliance problems. EPA did not meet its goal of reducing by 2% the number of facilities returning to significant non-compliance with 2 years. A +1.6 percentage point increase in the noncompliance recidivism rate indicates a 1.6% increase in the number of regulated facilities that went back into significant non-compliance with 2 years. This represents a missed target in that the target was a decrease of 2%. Facilities with violations under RCRA and CWA showed an increase in their recidivism rates, accounting for this overall increase. In FY 2002, EPA did not meet its goal to increase the proportion of facilities that return to compliance with environmental regulations within 2 years of having been in significant non-compliance. The average return to compliance within 2 years for significant noncompliers (SNCs) decreased by 3.8%, falling short of the 2% target increase; this indicates that a higher number of facilities required more than 2 years to resolve their compliance problems. This was largely due to a significant drop in the percentage of RCRA SNC's returning to compliance within 2 years. However, it should be noted that data quality improvement efforts for RCRA data in 2002 contributed heavily to this effect; EPA removed a number of facilities that were incorrectly categorized as SNCs from the database used to record recidivism rate results. This decreased the size of the universe of SNC facilities and increased the percentage. This data quality effort should bring about less variability and greater accuracy in future years.

* **NOTE:** FY 2001 Result has been updated to reflect information received after the FY 2001 Annual Report was published.

APG 54	Quality Assurance	Planned	Actual
FY 2003	**Identify noncompliance and focus enforcement and compliance assurance on human health and environmental problems, by maintaining and improving quality and accuracy of data. Goal Met.**		
	Performance Measures		
	—Operate 14 information systems housing national enforcement and compliance assurance data with a minimum of 95% operational efficiency.	**95%**	**95%**
	—Complete the detailed design and software development system lifecycle Phase II stage of Phase II of ICIS (modernization of the Permit Compliance System (PCS)) by September 2003.	**1**	**1**
FY 2002	Maintain and improve quality and accuracy of EPA's enforcement and compliance data to identify noncompliance and focus on human health and environmental problems. Goal Met.		
	Performance Measures		
	—Operate 14 information systems housing national enforcement and compliance assurance data with a minimum of 95% operational efficiency.	95%	95%
	—Have Phase I of the ICIS fully operational in March 2002.	Phase I	Phase I
FY 2001	Same goal, different targets. Goal Met.		
	Performance Measures		
	—Continue operation and maintenance/user support of 14 information systems housing national enforcement and compliance assurance data with a minimum of 95% operational efficiency.	95%	95%
	—Complete Phase I of ICIS development (programming) and begin design of Phase II.	Phase I	Phase I
	—Complete Quality Management Plan (QMP) project for additional data systems.	3	0
	—Complete detailed design (development of screens, prototypes) including a pilot NPDES permitting desk model for Permit Compliance System (PCS) system modernization.	1	1
	—Conduct four data analyses of environmental problems in Indian Country using the American Indian Lands Environmental Support Project (AILESP) and the baseline assessment survey.	4	12

FY 2003 Result: In FY 2003, the Agency continued its efforts in the phased implementation of the Integrated Compliance Information System (ICIS) by completing a detailed design document for ICIS Phase II: the Agency's modernization of the Permit Compliance System, which serves the permitting, enforcement, and compliance program needs of the Clean Water Act, National Pollutant Discharge Elimination System (CWA NPDES) program. The Agency also maintained 95% operational efficiency for the enforcement and compliance data systems. Such efficiency allows EPA users and the public to obtain data more efficiently and with less time lags and enables the Agency to perform integrated data analysis across a number of environmental statutes.

APG 55	Capacity Building	Planned	Actual
FY 2003	**Improve capacity of states, localities and tribes to conduct enforcement and compliance assurance programs. EPA will provide training as well as assistance with state and tribal inspections to build capacity. Goal Met.**		
	Performance Measures		
	—Conduct EPA-assisted inspections to help build state program capacity.	**250**	**1,027**
FY 2002	Same goal, different targets. Goal Met.		
	Performance Measures		
	—Number of EPA training classes/seminars delivered to states, localities and tribes to build capacity.	200	319
	—Conduct EPA-assisted inspections to help build state program capacity.	400	1,081
	—Provide tribal governments with 50 computer-based training (CBT) modules.	50	116
	—Total number of state and local students trained.	4,900	6,631
	—Train tribal personnel.	95	808
FY 2001	Same goal, different targets. **Goal Met.**		
	Performance Measures		
	—Number of EPA training classes/seminars delivered to states, localities and tribes to build capacity.	220	128
	—Conduct EPA-assisted inspections to build capacity.	150	895
	—The National Enforcement Training Institute will provide tribal governments with 50 CBT modules.	50	235
	—Total number of state and local students trained.	4,900	4,727
	—The National Enforcement Training Institute will train tribal personnel.	105	428
FY 2000	Same goal, different targets. Goal Met.		
	Performance Measures		
	—Number of EPA-assisted inspections to build capacity.	100	713
	—Number of EPA training classes/seminars delivered to states/localities and tribes to build capacity.	200	154

FY 2003 Result: EPA builds capacity with the state and tribal partners by conducting EPA-assisted inspections and by providing training to partner inspectors. Through EPA-assisted inspections, the states gain a better understanding of environmental requirements and inspection techniques, which improves the consistency of enforcement and compliance work. The number of EPA's assisted inspections for FY 2003 was consistent with FY 2002's result. Capacity building activities assist EPA in meeting annual performance targets each year due to the delegation of many of the statutory requirements to state and tribal entities.

APG 56	Reducing Persistent Bioaccumulative Toxics (PBTs) in Hazardous Waste Streams	Planned	Actual
FY 2003	Reduce waste minimization priority list chemicals in hazardous waste streams by 43% to 86 million pounds by expanding the use of state and industry partnerships and regional pilots. Data Lag.		
	Performance Measures		
	—Percentage reduction in generation of priority list chemicals from 1991 levels.	3%	data available in 2004
FY 2003 Result: Data will be available by December 2004.			

APG 57	Toxics Release Inventory (TRI) Pollutants Released	Planned	Actual
FY 2003	The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery in 2002 (normalized for changes in industrial production) will be reduced by 200 million pounds, or 2%, from 2002. Data Lag.	-200 M	data available in FY 2005
FY 2002	The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery in 2002 (normalized for changes in industrial production) will be reduced by 200 million pounds, or 2%, from 2001. Data Lag.	-200 M	data available in 2004
FY 2001	The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery in 2001 (normalized for changes in industrial production) will be reduced by 200 million pounds, or 6.3%, from 2000. Goal Met.	-200 M	-464 M
FY 2000	The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery, (normalized for changes in industrial production) will be reduced by 200 million pounds, or 2%, from 1999 reporting levels. Goal Met.	-200 M	-405 M

FY 2003 Result: Data will be available in September 2005 due to a 2-year lag in the reporting cycle for TRI data. (Facilities report to EPA 6 months after the end of the reporting year; EPA processing and quality assurance require an additional 9-12 months prior to public release).

FY 2001 Result Available in FY 2003: For FY 2001, EPA exceeded its target of a reduction of 200 million pounds of TRI non-recycled wastes: production-adjusted (normalized) waste amounts were reduced by over 464 million pounds from 2000 levels (6.3% reduction) in part due to correction of reporting anomalies experienced in FY 2000, and in part due to greater than expected source reduction success by industry.

APG 58	Tribal Environmental Baseline/Environmental Priority	Planned	Actual
FY 2003	**In 2003, the American Indian Environmental Office (AIEO) will evaluate non-Federal sources of environmental data pertaining to conditions in Indian Country to enrich the Tribal Baseline Assessment Project.** Goal Met.	**20**	**20**
FY 2002	Baseline environmental information will be collected for 38% of tribes (covering 50% of Indian Country). Goal Met.		
	Performance Measures		
	—Environmental assessments for tribes (cumulative).	**217 tribes**	331 tribes
FY 2001	Same goal, different targets. Goal Met.	193	207
FY 2000	16% of tribal environmental baseline information will be collected and 12 additional tribes (cumulative total of 57) will have tribal/EPA environmental agreements or identified environmental priorities. Goal Not Met.	16% 12	16% 4

FY 2003 Result: Under federal environmental statutes, EPA is responsible for ensuring human health and environmental protection in Indian Country. By the end of FY 2003, EPA met its goal for assessing 20 non-Federal sources of environmental data to integrate existing data, develop partnerships, improve communication, and establish tribal environmental priorities in a coordinated, multi-media, and interagency way.

APG 59	New Technologies	Planned	Actual
FY 2003	**Develop 10 testing protocols and complete 40 technology verifications for a cumulative Environmental Technology Verification (ETV) program total of 230 to aid industry, states, and consumers in choosing effective technologies to protect the public and environment from high risk pollutants.** Goal Met.	**10** **40**	**10** **40**
FY 2002	Formalize generic testing protocols for technology performance verification, and provide additional performance verifications of pollution prevention, control and monitoring technologies in all environmental media. Goal Met.		
	Performance Measures		
	—Complete 20 stakeholder approved and peer-reviewed test protocols in all environmental technology categories under Environmental Technology Verification (ETV), and provide them to testing organizations world-wide.	20	20
FY 2001	Develop, evaluate, and deliver technologies and approaches that eliminate, minimize, or control high risk pollutants from multiple sectors. Emphasis will be placed on preventive approaches for industries and communities having difficulty meeting control/emission/effluent standards. Goal Not Met.		
	Performance Measures		
	—Deliver a Report to Congress on the status and effectiveness of the ETV Program during its first 5 years.	1	0

APG 59	New Technologies *(continued)*	Planned	Actual
FY 2000	Complete development of one or more computer-based tools which simulate product, process, or system design changes, and complete proof-of-process structure for one or more generic technologies (applicable to more than one environmental problem) to prevent or reduce pollution in chemicals and industrial processes. Goal Met.		
	Performance Measures		
	—Complete development of PARIS II Software tool to design environmentally benign solvents, and development and integration of Waste Reduction (WAR) Algorithm into commercially available chemical process simulator.	9/30/00	9/30/00
	—Complete Beta testing of a decision support tool for life-cycle analyses of municipal waste management options.	9/30/00	9/30/00

FY 2003 Result: EPA met the new technologies goal to develop 10 testing protocols and complete 40 technology verifications to protect the public and the environment from high risk pollutants. EPA completed 10 stakeholder-approved and peer-reviewed testing protocols for commercial-ready environmental technologies in the following areas: air pollution control, drinking water, air monitoring, source water protection and wet weather flows, and pollution prevention technologies. In addition, EPA also completed 40 verifications of commercial-ready air pollution control, drinking water treatment, air, water, and soil/surface monitoring, water quality protection, greenhouse gas reduction, and pollution prevention environmental technologies. These protocols and verifications cumulatively provide environmental technology purchasers, permitters, and vendors information on 230 environmental technologies that enhance understanding of a wide variety of environmental technologies and improve decision making regarding future environmental technology purchases.

FY 2002 Annual Performance Goals

(No Longer Reported for FY 2003)

- Ensure compliance with legal requirements for proper handling of hazardous waste imports and exports.
- Promote the use of Environmental Management Systems (EMS) to address known compliance and performance problems.
- Improve public access to compliance and enforcement documents and data through multimedia data integration projects and other studies, analyses and communication/outreach activities.
- Improve P2 tools for the industrial sector and other sectors by providing updated/new methods and approaches to help users simulate product, process or system redesign and evaluate resulting pollution levels, impacts and costs.
- EPA will provide direct investigative, forensic, and technical support to the Office of Homeland Defense, FBI, and/or other federal, state, and local law enforcement agencies to help protect and prevent, or respond to, terrorist-related environmental, biological, or chemical incidents.

Notes

1. Additional information on smart enforcement, available at http://www.epa.gov/compliance/resources/publications/planning/direction/smartenfjpmemo.pdf.
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4. These pollution prevention results are cumulative data achieved over multiple years; however, these results do not represent recurring savings and reductions that continue each year. Note: not all states/programs answered the survey. National Pollution Prevention Roundtable, *An Ounce of Pollution Prevention Is Worth Over 167 Billion Pounds of Cure: A Decade of Pollution Prevention Results 1990-2000*. National Pollution Prevention Roundtable: Washington, DC, 2003. Available at http://www.p2.org/p2results/PressRelease.cfm, 16.
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11. More information on settled cases and the environmental benefits achieved, including pounds of pollutants reduced, available at http://www.epa.gov/compliance/resources/cases/civil; US EPA, "Goal 9: A Credible Deterrent to Pollution and Greater Compliance with the Law." *FY 2003 Annual Performance Plan*. US EPA: Washington, DC, 2001, IX-6.
12. US EPA, *Archer, Daniels, Midland Clean Air Act Settlement*. Accessed: October 30, 2003. Available at http://www.epa.gov/compliance/resources/cases/civil/caa/.
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14. More information on the self audit policy available at http://www.epa.gov/compliance/incentives/auditing.
15. US EPA, Office of Environmental Information, "Toxics Release Inventory (TRI) Waste (Waste Quantity Trends Report on 1995 Core List for all chemicals and manufacturing sector throughout the U.S.)." *TRI Explorer database*. Accessed: August 14, 2003. Available at http://www.epa.gov/triexplorer/. EPA's Office of Pollution Prevention and Toxics performed analyses to generate the production-adjusted (normalized) data. The production index used was the Bureau of Economic Analysis' Chain Type Quantity Index for the manufacturing sector. The annual index was extracted from the Internet at http://www.bea.gov/bea/regional/gsp/, maintained by the Bureau of Economic Analysis (Site accessed August 14, 2003).
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